



Town Administrator's Office

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Memorandum

Date: July 8, 2016
To: Stone Bridge Abutment Ad Hoc Subcommittee
From: Matt Wojcik
RE: Approved minutes for July 7, 2016 meeting

The Subcommittee was called to order at 7:03 PM on Thursday, July 7 in Town Council chambers, Town Hall 343 Highland Road. Members present: Councilor Brett Pelletier (presiding), Councilor Peter Mello, David Saurette, David Vannier, Matt Wojcik. Also present – Town consulting engineers Patty Steere, Deirdre Paiva; VHB staff Bill DeSantis and Jack Madden.

A motion was made by Mr. Saurette to approve the minutes of the last meeting as drafted. Seconded by Councilor Mello. All members were present and voted in the affirmative.

Chairman Pelletier opened the meeting up for discussion of the various questions raised at the last meeting and VHB's responses. VHB has responded to many of the concerns raised, in writing. [A copy of the written responses is attached and included by reference as part of these minutes.]

Mr. Saurette asked why VHB calls for removing the rip rap and driving sheet piles at the west end of the abutment. Mr. DeSantis responded that the old timber lagging, rip rap and mortar holding west end together has been displaced and the idea is to reinstall those elements. Mr. Madden offered that sheeting will be high enough to prevent fines from being washed out. Mr. Saurette responded by asking if any borings have been done on the west end of the abutment, to determine if there is a footing out there, noting that the steel beams must go into something. Mr. DeSantis answered by saying those steel beams are not pilings. VHB cored through the wall, dug test pits and did borings, no footings found. No geotech data suggesting any problems driving sheet piles on west end. Bottom appears sandy.

Mr. Vannier asked about the depth the sheet piles would be driven to; Mr. DeSantis answered that this has not yet been determined. The Chairman asked if the west end is much of a priority right now, does not see direct tidal action. Mr. Madden noted that there is water penetration at this section of the abutment now. A concrete cap will be over the top of the sheeting and help prevent water from getting into the structure.

Mr. Saurette brought the conversation back to the matter of footings. He asked for assurance that the situation will not arise where sheet piles are easily driven along the north face and then, once work gets to the west end of the abutment, a footing will be hit and the effort significantly disrupted. Mr. DeSantis offered to do some borings. He said that it would be typical

to bid out a line item for removal of obstructions. The Chair noted and Mr. Saurette agreed that we do not have the budget flexibility on this project to deal with major surprises. Mr. Saurette offered further that the thing to do is remove the rip rap at the west end and have a look before you get very far with the project, determine if you need to make a change based on what you find after simple exploration.

At this point Mr. DeSantis asked if it was the Committee's desire to simply do a repair at the west end. Mr. Vannier said no, not a prudent move given water flows, tides, etc. The Chair opined that there needs to be an alternative plan for dealing with the west end. Ms. Steere asked if MSE could be an option (stabilized earth). Mr. Vannier noted that erosion is a factor; Ms. Steere said the option is viable depending on how deep one has to go.

Mr. DeSantis said a problem here is that the contractor has to order the sheeting and make plans; if you find something unexpected and are forced to redesign, the contract will have to be renegotiated.

Mr. Saurette asked if a barge would be necessary to explore conditions at the west end of the abutment. Mr. DeSantis said that it might be possible to work from the north face of the abutment. Mr. Saurette reiterated it may be necessary to have repair of the west end as an alternative if sheeting does not work there.

The Chair noted that the project has to live within its budget. Mr. DeSantis offered he is very worried about the budget even at \$2.3 million. Mr. Saurette said he is not worried at all, the design is simple. Mr. Vannier offered that lagged timbers to keep fines inside waterfront structures was a very common practice that worked for many years, especially in Fall River. Mr. DeSantis repeated that no footings had been found and that he would offer a cost effective solution for the west end if a problem should arise.

The Chair turned the conversation to the issue of stand pipes along the abutment. There was general conversation by several members regarding the perceived need for stand pipes; the Chair offered he would interact with Chief Lloyd to determine how important, or not, the stand pipes would be.

Mr. Vannier then brought up the issue of lighting. Mr. DeSantis said that lighting had been value engineered out of the project. The Chair said that would be a deal breaker for the Town; lighting is expected as a necessary safety feature for pedestrians on the abutment. Mr. DeSantis said lighting can be brought back into the design, but that would require amending the plan before submitting it to CRMC, since lighting would be something they would look at, along with DEM. It was noted that the most recent version of the plan including lighting had set aside \$135,000 for that item.

There followed a lengthy conversation about lighting options and considerations, including night navigation, ambient light levels in the basin, and whether it was necessary to light both sides of the abutment or just one side, or run the fixtures straight down the middle of the structure. There was general consensus that adding lighting back into the plan, running only on the south side of the abutment, should be the way forward.

There followed another general conversation involving all attending regarding the railings proposed, their location, materials used for construction and interaction of the railing system with the sand filter system required by CRMC for drainage. The major points included a comment by Mr. Saurette that if the fear is that people will hop the railing and disturb the sand filter system, the system should be capped with appropriate pavers instead of loose stone that can be knocked into the water. Mr. DeSantis represented that the Town should consider both metal railings and wooden ones, given the potential need to repair or replace them and the cost involved in doing so. There was general consensus that useful life and aesthetics made metal railing system much more attractive as an option.

Mr. Vannier asked if the deepening hole in the river north of the abutment – which may be 40 feet deeper than shown on navigational charts as a result of current changes after work on the Sakonnet River Bridge area – is taken into consideration in the plans, specifically, regarding the depth to which the sheet piles will be driven.

Mr. DeSantis responded that there was no impact expected from this change in the river floor. He said that there was no visible change seen in pictures or at low tide. He said that if this is a concern, it would be necessary to reach out to the Army Corps of Engineers, but no fix would be eligible from the funding source set aside for the abutment. It was noted that Army Corps had been made aware of the project and the changes in the depth of the River.

Mr. Vannier asked if barge is needed to drive sheet piles, how will it operate in very shallow water around the north east section of the project area. Mr. DeSantis responded by saying he is worried about this. The contractor is unlikely to get a full 8 hour construction shift operating in this area given tidal action. This was the thinking behind the rip rap revetment concept that had been rejected by CRMC – to avoid having to work in this fashion.

At this point, there was a series of interactions between Ms. Steere and VHB representatives.

Ms. Steere asked if specifications and structural calculations had been completed at this point in the design. Mr. DeSantis said that specific type of sheeting, etc. had not yet been determined. Ms. Steere cautioned that the maximum exposed height of the various elements was approaching the point of necessitating tie-backs. Ms. Steere also asked how certain VHB was that flowable fill is a workable solution, will it fill all voids and be solid enough for work it will support above. Mr. DeSantis responded by saying that the idea is to completely clean out the interior of the abutment before flowable fill is placed.

Ms. Steere then asked about coating on the pilings. Mr. DeSantis said this had not been specified yet.

Ms. Steere continued with questions about how the structure will be drained above and below the sheet piles. Mr. DeSantis said that a sand filter system will take care of drainage of water from the top of the structure. Mr. Madden stated there will be weep holes above the sheeting. Ms. Steere noted that means there is no drainage facility for water that penetrated below the sheet piles; Mr. DeSantis responded by saying that the sheeting will be designed to handle any resulting hydrostatic pressure coming from inside the structure.

At this point the conversation turned back to the issue of footings. Mr. DeSantis offered he would double check the GZA boring data from the 2011-2012 time frame to be sure there were no footings found anywhere along the abutment. Steere Engineering has not yet seen the boring result data from that second set of tests.

Ms. Steere asked if there is a contingency plan for that portion of the abutment that has already collapsed. Mr. DeSantis responded that no, the plan was to have the same construction method all the way across the north face of the abutment.

Mr. Saurette noted that VHB's answers to many questions indicated they have a lot of work to do before the plans are truly ready for use as construction plans by a contractor. Mr. DeSantis responded that his goal was to get the plans to the point where they were acceptable for the permitting agencies. Once those agencies had made all their comments, VHB would incorporate them into a final set of PS&E and a contract book. Throughout this commentary Mr. DeSantis noted he felt RIDOT would be letting the contract and doing all of the contract administration work associated with the project.

At this point the Chair interrupted and noted to Mr. DeSantis that the contract between the Town and RIDOT has not been amended and that the Town is the lead agency on the project and would handle the contract administration. Mr. DeSantis noted that the administration of the contract alone would cost well over \$200,000; the Chair responded that after all the work that has already been done, RIDOT has not taken any steps to drive this project to conclusion or create confidence that it was truly prepared to do so.

Ms. Paiva asked Mr. DeSantis what stage the project design is considered to have reached. He answered, enough to get the necessary permits. He then spoke of the time frame for the project going forward once permits are issued. He estimated we are 12-15 months away from issuing an order to proceed to a contractor. Mr. DeSantis offered that the CRMC process would take a minimum of 6 months, but probably more, much depending on public comments submitted in connection with hearing process. He said that a 1 foot extension from the current structure is simply not feasible.

Mr. DeSantis then offered he would try to get many of the issues raised at this meeting resolved by Wednesday next, to give the Committee time to review and formulate a recommendation to the Town Council in connection with authorizing a go-ahead for the permitting process.

At this point, the VHB representatives were excused from the meeting.

Mr. Vannier asked how comfortable everyone is at this point. Ms. Steere noted that the sheeting is a major design element and should have been completed by now, or really, a long time ago. The wall design needs to be completely finalized before any cost estimate for the work could be considered final. There followed a general discussion by all members regarding the fixed fee nature of the VHB contract and the deliverables included in their schedule of work.

Mr. Vannier offered he would update the Harbor Commission. The Chair's directions to speak to Fire Chief were also noted. Mr. Vannier offered a formal motion to direct members to act

in accordance with the discussion at the meeting. Seconded by Councilor Mello. All members were present and voted in the affirmative.

The Chair set the time of the next meeting as 7:00 PM on Thursday, July 14. Mr. Saurette moved adjournment, seconded by Councilor Mello, all members present and voted in the affirmative.